

**REMARKS****INTRODUCTION:**

In accordance with the foregoing, claim 3 has been canceled without prejudice or disclaimer, and claims 1, 4, 5, 6, 10, 14, and 18 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-2 and 4-18 are pending and under consideration. Reconsideration is respectfully requested.

**ENTRY OF RESPONSE UNDER 37 C.F.R. §1.116:**

Applicants request entry of this Rule 116 Response and Request for Reconsideration because:

- (a) at least certain of the rejected claims have been canceled thereby at least reducing the issues for appeal;
- (b) it is believed that the amendments of claims 1, 4, 5, 6, 10, 14, and 18 put this application into condition for allowance;
- (c) the amendments were not earlier presented because the Applicants believed in good faith that the cited prior art did not disclose the present invention as previously claimed; and/or
- (d) the amendments place the application at least into a better form for appeal.

The Manual of Patent Examining Procedures sets forth in §714.12 that "[a]ny amendment that would place the case either in condition for allowance or in better form for appeal may be entered." ( Underlining added for emphasis) Moreover, §714.13 sets forth that "[t]he Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

**REJECTION UNDER 35 U.S.C. §103:**

A. In the Office Action, at pages 2-4, claims 1-13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi et al. (USPN 6,741,534; hereafter, Takahashi) in view of Okumura (USPN 5,444,687; hereafter, Okumura). In the Office Action, at page 4, claims 10 and 18 were rejected by the Examiner's submitting: "In regard to claims 10 and 18, see claims 1 and 6 rejections above." The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Independent claims 1 and 18 have been amended to add the feature: "wherein the optical disc has an absolute time of 99 minutes, and wherein the controller comprises: a memory that stores a reference number of ATIP syncs for each track of the optical disc; a counter that counts the number of ATIP syncs for each track at the current position of the pickup; and a location determination unit that compares the number of counted ATIP syncs with the reference number of ATIP syncs and determines the current position of the pickup based on the comparison result." It is respectfully submitted that the present invention relates to an optical disk that has an absolute time of 99 minutes and utilizes a memory, a counter, and a location determination unit as recited in amended independent claims 1 and 18 to determine the current position of the pickup. These amendments are based on paragraphs [0005], [0006], [0008] and [0010] of the specification:

[0005] However, in the case of an optical disc having an absolute time of 99 minutes, 90 - 99 minute areas are present in both a lead-in area and the area other than the lead-in area, i.e., a program area or a lead-out area, as shown in FIG. 3. Therefore, whether a pickup is present in the lead-in area or an area other than the lead-in area must be determined. Otherwise, when the pickup is present in a 95 - 99 minute area, a seek error may occur. The area of the optical disc where a pickup is located has to be determined to measure a distance of movement of the pickup precisely. Then, the position of the pickup is converted into -LBA when the pickup is judged to be present in the lead-in area and converted into +LBA when the pickup is judged to be present in an area other than the lead-in area. Accordingly, the distance of movement of the pickup may be precisely measured, thus rendering precise access to a desired point of the optical disc. (emphasis added)

[0006] The present invention provides an apparatus to determine the area of an optical disc, through which an inner area and an outer area of an optical disc having an absolute time of 99 minutes may be differentiated from each other by referring to a number of an absolute time-code in pre-groove (ATIP) syncs. (emphasis added)

[0008] According to an aspect of the present invention, an apparatus for determining the area of an optical disc comprises a pickup that reads or records a signal from or to the optical disc; a spindle motor that rotates the optical disc; and a controller that counts the number of ATIP syncs for one rotation of the optical disc at the current position of the pickup, compares the number of counted ATIP syncs with a reference number of ATIP syncs, and determines the current position of the pickup based on the comparison result when it is determined from ATIP information read by the pickup that the pickup is present in the area of 95 minutes or more of the optical disc. (emphasis added)

[0010] The controller comprises a memory that stores the reference number of ATIP syncs for each track of the optical disc; a counter that counts the number of ATIP syncs for each track at the current position of the pickup; and a location determination unit that compares the number of counted ATIP syncs with the reference number of ATIP syncs and determines the current position of the pickup based on the comparison result. (emphasis added)

The Examiner submits: "In regard to claims 1 and 6, Takahashi teaches an apparatus to determine an area of an optical disc, comprising: a pickup that reads/records a signal from/to the optical disk (fig. 8 element 203); a spindle motor that revolves the optical disc (202); and a controller that counts a number of wobble syncs for one rotation of the optical disc

at a current position of the pickup, compares the number of counted wobble syncs with a reference number of wobble syncs, and determines the current position of the pickup based on a comparison result, when wobble sync information read by the pickup indicates that the pickup is present in an area of the optical disk that is greater than or equal to 95 minutes (column 15, lines 28-33. In regard to the limitation "greater than or equal to 95 minutes", the apparatus of Takahashi would inherently do this everywhere on the disc" (emphasis added). As noted above, in the case of an optical disc having an absolute time of 99 minutes, 90 - 99 minute areas are present in both a lead-in area and the area other than the lead-in area, i.e., a program area or a lead-out area, as shown in FIG. 3. Therefore, whether a pickup is present in the lead-in area or an area other than the lead-in area must be determined. Otherwise, when the pickup is present in a 95 - 99 minute area, a seek error may occur. As admitted by the Examiner, Takahashi does not teach or suggest using ATIP information. Hence, it is respectfully submitted that Takahashi does not teach or suggest using ATIP information to determine whether the pickup is present in an area of the optical disk that is greater than or equal to 95 minutes, wherein the optical disc has an absolute time of 99 minutes, as is recited in amended independent claims 1 and 18 of the present invention. Similarly, it is submitted that Takahashi does not teach or suggest "wherein the optical disc has an absolute time of 99 minutes, storing, in a memory, the reference number of ATIP syncs for each track of the optical disc, counting, by a counter, the number of ATIP syncs for each track at the current position of the pickup, and comparing, by a location determination unit, the number of counted ATIP syncs with the reference number of ATIP syncs and determining the current position of the pickup based on the comparison result," as is recited in amended claim 6 of the present invention.

Similarly, independent claim 10 has been amended to add: "wherein the optical disc has an absolute time of 99 minutes," which is not taught or suggested by Takahashi.

It is important to note that that, although Okumura discloses, col. 9, lines 44-53: "Alternatively, the record position may be obtained on the basis of a wobble signal previously embedded in the guide groove of a track on the optical disc 41 or position information called "absolute time in groove" (ATIP) which is a modulated and recorded wobble signal and the write clock may be generated on the basis of this write clock. In the case of a CD-MO generally, a clock signal can be obtained from a wobble signal during recording. This wobble signal is recorded by the CLV system," this cited information is the only mention of ATIP in Okumura, and said cited information does not recite that the ATIP information is used in optical disc that has an absolute time of 99 minutes, does not indicate that a controller of the apparatus comprises: a memory that stores a reference number of ATIP syncs for each track of the optical disc; a counter that counts the number of ATIP syncs for each track at the current position of the pickup; and a location determination unit that compares the number of counted ATIP syncs with the

reference number of ATIP syncs and determines the current position of the pickup based on the comparison result, as is set forth in the present invention. That is, although Okumura mentions that ATIP information may be used, Okumura does not teach or suggest how said ATIP information may be utilized.

Hence, it is respectfully submitted that, even if Takahashi and Okumura were combined, the combination does not teach or suggest the present claimed invention. Further, the case law makes clear that there is a rigorous application of the requirement for a showing of a teaching or motivation to combine the prior art references. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. "Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight." Id. "When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references." In re Rouffet, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998) (citing In re Geiger, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987)). "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). Although the suggestion to combine references may flow from the nature of the problem, see Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), "[d]efining the problem in terms of its solution reveals improper hindsight in the selection of the prior art relevant to obviousness," Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH, 139 F.3d 877, 880, 45 USPQ2d 1977, 1981 (Fed. Cir. 1998). Therefore, "[w]hen determining the patentability of a claimed invention which combines two known elements, 'the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.'" In re Beattie, 974 F.2d 1309, 1311-12, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992) (quoting Lindemann, 730 F.2d at 1462, 221 USPQ at 488). The Examiner does not discuss any specific evidence of motivation to combine, but only makes conclusory statements.

Also, it should be noted that the Examiner states: "In regard to claims 4, 5, 8, 9, 12 and 13 Takahashi et al. teaches the location determination unit determines that the pickup is present in a lead-in area when the number of counted ATIP syncs is less than the reference number of ATIP syncs and the location determination unit determines that the pickup is present in an area other than a lead-in area when the number of counted ATIP syncs is greater than the reference number of ATIP syncs (since the lead-in area is at the smallest radius of the disc and all other areas are at greater radii, the number of syncs would be smaller in the lead-in area than all other areas. Therefore if the number of syncs in the first data area is considered the reference value,

this limitation is met)." Applicant respectfully note that the terminology "ATIP" is not recited anywhere in Takahashi, as is agreed by the Examiner on page 2 of the Office Action. Similarly, the Examiner's contention that "Takahashi et al. teaches all the limitation of claim 11 except wherein one block corresponds to 2 kbytes" is submitted to be inaccurate because claim 11 and claim 10 from which claim 11 depends, both recite utilizing ATIP syncs, which are not taught by Takahashi.

Hence, it is respectfully submitted that amended independent claims 1, 6, 10, and 18 are patentable under 35 U.S.C. §103(a) over Takahashi et al. (USPN 6,741,534) in view of Okumura (USPN 5,444,687). Claim 3 has been cancelled without prejudice or disclaimer. Since claims 2, 4-5, 7-9, and 11-13 depend from amended independent claims 1, 6, and 10, respectively, claims 2, 4-5, 7-9, and 11-13 are submitted to be patentable under 35 U.S.C. §103(a) over Takahashi et al. (USPN 6,741,534) in view of Okumura (USPN 5,444,687) for at least the reasons amended independent claims 1, 6 and 10 are patentable under 35 U.S.C. §103(a) over Takahashi et al. (USPN 6,741,534) in view of Okumura (USPN 5,444,687).

B. In the Office Action, at pages 4-5, claims 14-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi et al. (USPN 6,741,534; hereafter, Takahashi) in view of Official Notice. The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Similarly to the above, independent claim 14 has been amended to add: "wherein the optical disc has an absolute time of 99 minutes," which is not taught or suggested by Takahashi.

If the U.S. Patent and Trademark Office wishes to take Official Notice that the proposed structural and functional invention is well known, we suggest that supporting evidence be provided by the Examiner. The Federal Circuit has cautioned that an Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. In re Röuffet, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998).

Only the present invention sets forth all the claimed features, as well as the motivation for combining the same. The outstanding rejection would appear to have taken this teaching of the present invention and applied the same to Okumura, as set forth in the Office Action, to disclose the presently claimed invention. Okumura does not teach or suggest how the ATIP information may be utilized. Applicants respectfully assert that the *prima facie* burden has not been met.

Accordingly, in view of the foregoing, it is respectfully requested that independent claim 14 and related dependent claims 15-17 be allowed under 35 U.S.C. §103(a) over Takahashi et al. (USPN 6,741,534), and that the rejection in view of Official Notice be withdrawn.

**CONCLUSION:**

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited. At a minimum, this Amendment should be entered at least for purposes of Appeal as it either clarifies and/or narrows the issues for consideration by the Board.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited and possibly concluded by the Examiner contacting the undersigned attorney for a telephone interview to discuss any such remaining issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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